

Abstract

The invention relates to a method and apparatus for regenerating portions of the page that have changed and transmitting only those portions to the client for display. Executing only the necessary parts of the page generation code and transmitting only changes to the client improves the efficiency of using the resources of the network communication channel, the client node and the server node. Performing these operations only when required, when the data has changed, improves the efficiency of use even further. The invention also takes advantage of any portions of the page that are already on the client by reusing them and thus eliminates the need to regenerate or transmit those reusable portions.

In one aspect, the invention relates to a method for incorporating a partial page into a transmitted page displayed on a client. The method includes displaying the transmitted page on a client, receiving by the client a regenerated portion of the transmitted page from a server and incorporating by the client the regenerated portion into the transmitted page displayed on the client. In one embodiment, the method includes receiving by the client a modification list from the server instructing the client on the incorporation of the regenerated page portion into the transmitted page. In another embodiment, the method includes receiving by the client additional code instructing the client on how to interpret commands contained in the modification list.